

## **APPENDIX B**

## Clinician Application

The **well.at.home** Clinician Application is software that clinicians use to:

- Monitor patients
- Create new patients
- Import/export patients
- Add/update Contributors
- Update demographics
- Enter/change orders
- View patient charts with CareViews

The Clinician Application is divided into three components: Monitoring, PtChart, and CareGivers. All three are described in this document.

### Sign-on screen

Opening this application presents a clinician sign-on screen. To enter the Clinician Application, type the login and PIN and then click **Accept** under the *Tools* menu.

When signed on to the **well.at.home** system, the *Main Menu* appears. Here, the clinician has the options to choose from the three components of the Clinician Application.

### I. Monitoring

This component of the Clinician Application is used by to view events that the clinician deems important enough to monitor. Presently **PtCT** has defined two events: noncompliance to an order and no communication with the server. An event appears in Monitoring if a patient *fails* to indicate that a task derived from an order was done. Also an event appears if the Patient Workstation has not communicated with the server. In the future, the institution will have the power to define rules governing what events appear on Monitoring.

In Monitoring, a screen appears with **Monitor Updates as of Date** and **Monitor Updates as of Time** in a table form. **Monitor Updates as of Date** is the *date* from which the events appear. If the date is entered a week from the present day, all events for the past week up to the most recent appears. **Monitor Updates as of Time** is the *time* from which the events appear. This option allows the clinician to further specify the monitoring timeframe. If a clinician only wants to see events for this afternoon, he or she can specify the time to be 12:00pm. Only events from 12:00pm to the most recent appears. To set the monitor date, click on "Monitor Updates as of Date" and then click **Show Detail** under the *Tools* menu. Click on the desired month, day, and year and then click **OK** to enter Monitoring. To set the monitor time, click on "Monitor Updates as of Time", then click the desired time, and click **OK** to enter Monitoring.

Once in Monitoring, a table of four columns with a list of all events appears. The first column (going left to right) is an area for a checkmark. A checkmark appears next to an event if a clinician clicks on that event to view details. Clicking on an event opens a small window that shows the history of that event. If it is a non-compliance event, a history of the compliance of that order appears. If it is a non-communication event, detailed information about the patient and when the last communication occurred appears. The second column is the date of the update. The date indicates how many minutes, hours, or days have passed since the event first appeared on Monitoring. The next column shows the name of the patient. The last column (farthest right) describes the type of event (non-compliant or non-communication). If the event is non-compliance, the system presents a description of the order.

## II. PtChart

This component of the Clinician Application is used to:

- Create new patients
- Import/export patients
- Update/add Contributors
- Enter/change orders
- Update demographics
- View patient charts with CareViews (see below).

Selecting this component opens *Patient Menu*, which contains a list of imported patients. The *Options* menu includes the following: **View/Update**, **Export**, **Import**, **Create New**, and **Delete**. (The clinician can exit the *Main Menu* by clicking **Return** in the *Tools* menu).

### A. View/Update

This option allows the clinician to view patient charts with CareViews, enter orders, update demographics, and add contributors. Selecting this option opens *Patient Confirmation*, which contains the patient name, protocol, primary doctor, and last update date. Under the *Options* menu, you will find **CareViews**, **Orders**, **Demographics**, and **Contributors**.

#### 1. CareViews

CareViews is a tool that enables you to view the patient's schedule and graphically view the data the patient has entered. All the CareViews are listed, and you can choose one by clicking on the CareView from the list.

##### a. Schedules

This CareView allows you to view the patient's treatment schedule up to a week in advance. Once in **Schedules**, a list of days appears. Choose a day to view by clicking on the day. To exit, click on the red "X" button found in the **Menu Area**.

**b. Checkup**

This CareView shows all the information gathered from the morning and/or evening Checkup order. The information is presented in a day-by-day format. For example, a patient with CHF sees information about the following: weight, chest pain, shortness of breath, cough, swelling, fatigue, and loss of appetite. The symptoms are presented in a graphical format for that particular day with a green bar indicating mild, yellow indicating moderate, and red indicating severe. You can also see change in the severity of the symptom. The words "Better", "Same", or "Worse" appear below the colored bars. If the symptom was absent, the word "absent" appears. If the data item is in numeric form (weight for example) a bar graph is shown. Also, the minimum and the maximum values recorded for that data item are shown next to it.

**c. Order compliance**

This CareView shows all the orders and the values that have been entered for that particular order. Also, each cell is divided by the time of the day the data was collected: morning, afternoon, evening, or night (MAEN). The farthest left column shows the order description (order name, strength if applicable, schedule, and start date) as well as the minimum and maximum values for that order. For example, if a patient is taking Lasix 40mg and he or she enters "Yes" when asked if Lasix was taken, a bar with the height of 40 appears in that cell. If the patient answers "No", no bar appears. Orders that only require the patient to indicate whether or not the task for that order was performed (morning checkup and rest for example) have a bar with the height of 1 if the task was performed. Nothing appears if it was not performed.

**d. Drugs and Symptoms**

This CareView shows the prescribed drugs and the major symptoms of the patient's disease(s). First, a drug is chosen from a menu and then a screen opens with the chosen drug on top and the major symptoms below it. If there is more than one page, the drug always appears on top. **Note:** The data about the drug is the same as that found in the **Order Compliance** CareView, and the data about the symptoms is the same as that found in the **Checkup** CareView.

**e. All symptoms**

This CareView shows all the symptoms that are covered in the patient specific protocol. The information is presented in the same graphical manner as that shown in the Checkup view.

**f. Chart Review**

This CareView shows all the facts and values collected. It is in a table form with the fact name and time the value for that fact was recorded in the left column. The actual value recorded appears in the middle column, and who recorded that value appears in the right column.

**g. Task compliance view**

This CareView shows if the patient has complied with all the prescribed orders. In the left column, the name of the order is shown. The right

column shows the words "Yes" or "No" and the time this value was recorded.

**h. Understands teaching**

This CareView shows what the patient recorded to the question "Do you understand this information about...?" found at the end of every educational topic. The data is presented in a table form with the name of the educational topic in the far-left column. The value recorded appears on the right, along with who recorded that value. In the farthest right column, the system shows how many days have passed since that value was recorded.

**2. Orders**

Clicking on this option allows the clinician to view, add, and stop an order as well as view history of the order's compliance. *Orders* opens with a list of orders and the following in the *Options* menu: **View Order**, **Add Order**, **Stop Order**, and **View History**. The list of orders includes the order description (order name, strength and form, if applicable, and schedule). The start date of the order is also presented.

**a. View Order**

Click the desired order to view, and then click **View Order** in the *Options* menu. A small window opens to present information about the start date, stop date, and who issued this order. To exit out of the small window, click **Return** from the *Tools* menu.

**b. Add Order**

To add an order, click **Add Order** under the *Options* menu. *Add Order* opens to present the different categories of orders:

- Common Orders
- Medications
- Non-Pharmacological Treatments
- Activities
- Measurements
- Diet

Common Orders are a list of orders that are common to the patient's protocol. For example, a CHF patient contains the following orders in the Common Orders category: Capoten, Vasotec, HCTZ, Furosemide, Outdoor exercise, Morning checkup, Evening checkup, Rest, and Eat. In the Medications category, an alphabetical list of drugs that are specific to the patient's protocol appears. Click either **Next** or **Prior** below the list of drugs or the drug range in the *Index* to access the desired medication. Click the desired medication then a new screen asking which strength and schedule of the selected medication appears. Select the strength and schedule and then a new screen asking for start date, stop date, and ordered by appears. Enter the information and click **Accept** in *Tools* menu to add the medication. Other orders such as Activities,

Measurements, Non-Pharmacological Treatments, and Diet are added using the same techniques as Medications.

**c. Stop Order**

To stop an order, click **Stop order** under the *Options* menu. *Stop Order* opens asking for the following data: Start date, Stop date, and Ordered by. Click on the stop date and input the stop date.

**d. View History**

To view the compliance history of an order, select the order from the list and then click on **View Hist** under the *Options* menu. A small window similar to the **Order Compliance** CareView opens for that order.

**3. Demographics**

To update the patient's demographics, click **Demographics** under the *Options* menu in the *Patient Confirmation* screen. *Edit Demographics* is presented with the following information: Patient Name, Contributor ID, Telephone #, Address, City, State, Zip Code, and Primary Dr.

**4. Contributor**

A contributor is anyone who could "contribute" data to the patient's charts. Possible contributors are nurses, doctors, and family members. To edit or add a contributor to the patient's charts, click **Contributors** under the *Options* menu in *Patient Confirmation*. *Update Contributor* opens with a list of the contributors, and **Add Contributors** and **Edit Contributors** options in the *Options* menu. To edit a pre-existing contributor, click on the name of the contributor and then click **Edit Contributors** under the *Options* menu. *Edit Contributors* is presented with the following information: Description (contributor's name), Contributor ID, Contributor Type, Telephone #, Institution, Address, City, State, and Zip Code. You can change the Contributors password by clicking **Change Psw** under the *Options* menu. Once you have finished editing the contributor, click **Accept** to save any changes and exit.

**B. Export**

In *Patient Menu*, click on the name of the patient to export and then click **Export** under the *Options* menu. This allows you to save any changes or new data to the patient charts on the server.

### **C. Import**

Importing a patient allows you to bring a copy of a patient's chart to the Clinician Workstation from the server. To import a patient, click **Import** under the *Options* menu. The application then dials into the server and retrieves all the patients. Click the name of the desired patient to import.

### **D. Create New**

To create a new patient, click **Create New** under the *Options* menu of *Patient Menu*. Type the File ID and then click **Accept** under the *Tools* menu. Fill in all the information about the new patient (Patient Name, Contributor ID, Telephone #, Address, City, State, Zip Code, and Protocol). **Note:** It is very important that the patient's protocol is recorded. Click **Accept** under the *Tools* menu to save and exit.

### **E. Delete**

To remove a chart from the Clinician Application, click on the name of the patient and then click **Delete** under the *Options* menu.

## **III. CareGivers**

This component of the Clinician Application allows you to add or delete users to and from the **well.at.home** system. Only users identified in this area are allowed access to the Clinician Application. Also, to gain access to this component, a special Login and PIN is needed. To add a new user, click **Add User** under the *Options* menu. An *Add New User* table opens asking for the following information: Last name, first name, user login, PIN, PIN verification, and ID#.